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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,954	11/16/2001	Marc A. Blais	FS-00561	7885

181	7590	12/12/2006
MILES & STOCKBRIDGE PC		
1751 PINNACLE DRIVE		
SUITE 500		
MCLEAN, VA 22102-3833		

EXAMINER	
HSU, JONI	

ART UNIT	PAPER NUMBER
2628	

MAIL DATE	DELIVERY MODE
12/12/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/987,954	Applicant(s) BLAIS, MARC A.	
	Examiner Joni Hsu	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,6,8,9,12-14,17,18,20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,6,8,9,12-14,17,18,20 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's arguments with respect to claims 1, 3, 5, 6, 8, 9, 12-14, 17, 18, 20, and 21 have been considered but are moot in view of the new ground(s) of rejection.

2. Applicant's arguments, see page 9, filed November 16, 2006, with respect to the rejection(s) of claim(s) 1, 3, 5, 6, 8, 9, 12-14, 17, 18, 20, and 21 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Beach (US005953017A).

3. Applicant argues that although Hardy (US005640496A) discloses that the free list specifies which pixel value nodes are free, it is apparent that Hardy does not teach that the nodes themselves each include a flag field. Moreover, Hardy discloses "overlayed" image data, but does not teach that this data is compressed graphic image data (page 9).

In reply, the Examiner agrees. However, new grounds of rejection are made in view of Beach.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3, 9, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Beach (US005953017A).

6. With regard to Claim 1, Beach discloses a system for displaying a graphic image of interest based on compressed graphic image data that include compressed data for the graphic image of interest (*the display of a collection of objects as compressed by operation of display-object manager 199*, Col. 6, lines 6-8), the system comprising a memory; means for storing the compressed graphic image data in the memory comprising a linked list in the memory (*objects in computer memory can have a hierarchical organization, structure of the displayed tree view shows where the objects belong within the nested hierarchical organization*, Col. 1, lines 18-26; *linked list of display structures, display structure 510g points to compression list structure 520g, which points back at display structure 510g*, Col. 10, lines 60-67), the linked list including a plurality of nodes (*tree-structure 530 is present in the hierarchical tree for all nodes including all those nodes that have been compressed and all those nodes that have been collapsed*, Col. 8, lines 52-55), wherein each node comprises a flag field for flagging the node as unused if the node does not include compressed graphic image data for the graphic image of interest (*Tree-*

structure 530 contains description 531, is-expanded flag 535. Description 531 contains the original description for the node. If this node has not been compressed, then description 531 and description 511 are identical. Is-expanded flag 535 refers to whether or not this node is expanded, Col. 8, line 63-Col. 9, line 15; if the user selected "uncompress", then display-object manger 199 initiates a loop processing every tree structure in the compression list associated with the item currently being processed, Col. 13, lines 13-18); means for selectively decompressing a portion of the compressed graphic image data as stored in the memory based on a selected coverage section of the graphics image data, the portion including only relevant data corresponding to the graphic image of interest (a dual icon with two overlapping pages, such as icon 501, means that this item has been compressed and thus can be uncompressed, Col. 6, lines 44-46); and display means for displaying the graphic image of interest based exclusively on the portion of the compressed graphic image data as decompressed (Col. 6, lines 44-46; maximum number-of-lines 418 is the maximum number-of-lines that the user would like to see at one time, Col. 8, lines 59-62).

7. With regard to Claim 3, Beach discloses that the means for storing the compressed graphic image data in the memory further includes means for storing the compressed graphic image data in a node in the linked list (Col. 1, lines 18-26; Col. 10, lines 60-67; Col. 8, lines 52-55).

8. With regard to Claim 9, it is similar in scope to Claim 1 above and is rejected under the same rationale.

9. With regard to Claim 21, Beach discloses a system for displaying a graphic image of interest (Col. 6, lines 6-8), comprising means for storing the compressed graphic image data in the memory comprising a linked list in the memory (Col. 1, lines 18-26), the linked list including a plurality of nodes (Col. 8, lines 52-55), wherein each node comprises a flag field for flagging the node as unused if the node does not include compressed graphic image data for the graphic image of interest (Col. 8, line 63-Col. 9, line 15; Col. 13, lines 13-18); means for selectively decompressing a portion of the compressed graphical image data in a tile as stored in the memory based on a selected coverage section of the graphic image data (Col. 6, lines 44-46); and display means for displaying the graphic image of interest based exclusively on the portion of the compressed graphic image data as decompressed (Col. 6, lines 44-46; Col. 8, lines 59-62).

10. Thus, it reasonably appears that Beach describes or discloses every element of Claims 1, 3, 9, and 21, and therefore anticipates the claims subject.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 5, 6, 8, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach (US005953017A) in view of Hardy (US005640496A).

14. Regarding claims 5 and 6, Beach is **silent about** means for flagging, as unused, nodes in the linked list that do not include image data for the graphic image of interest; means for determining if any nodes in the linked list are flagged as unused; means for replacing image data in a node flagged as unused; and means for adding to the linked list a node for storing the image data if no nodes in the linked list are flagged as unused. Hardy et al. **discloses** keeping a free list of available nodes 39 within each memory block 38 so that an empty node can be quickly found and added to the appropriate linked list of pixel value nodes (...As nodes are removed from a linked list, they are returned to the free list for reuse...The bitmap would specify which pixel value nodes are free and which are in use...col. 8, lines 14-27). Therefore, it would have been obvious to a person of ordinary skill in the art at the time invention was made to modify the device as taught by Li et al. with the feature "maintenance of a free list of available nodes within each memory block so that an empty node can be quickly found and added to the linked list" as

taught by Hardy et al. **because** it provides for not having to rearrange the allocated memory or consolidation of memory thus improving processing efficiency (col. 8, lines 14-21).

15. With regard to Claims, 8, 12, and 13, these claims are similar in scope to Claims 1, 5, and 6 respectively, and therefore are rejected under the same rationale.

16. Claims 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach (US005953017A) in view of Hashimoto (US006515673B1).

With regard to Claim 14 and 20, Beach discloses a method for displaying images from compressed image data files stored on a storage device, the compressed image data files including a file that includes compressed data for a first area of interest (Col. 6, lines 6-8; Col. 1, lines 18-26; Col. 10, lines 60-67), the method including the steps of receiving a request for the first area of interest; loading the file that includes compressed data for the first area of interest from the storage device into one of a plurality of nodes of a linked list in a memory (*Logic for display-object manager 199 is shown that is invoked whenever a user requests an operation against the hierarchical object display. At block 702, display-object manager 199 retrieves all of the data associated with the collected-object tree that the user is currently viewing. The data includes all of tree structures 530 and item records 540 associated with this hierarchical tree display*, Col. 11, lines 16-23; Col. 8, lines 52-55), wherein each node comprises a flag field; flagging, using the node flag field, as unused nodes in the linked list that do not include compressed data for the first area of interest (Col. 8, line 63-Col. 9, line 15; Col. 13, lines 13-18); decompressing a portion of the file as loaded into memory based on the received request for the

first area of interest, the portion including data corresponding to the first area of interest (Col. 6, lines 44-46); sending the data for the portion of the file as decompressed to a frame buffer; and generating an image for the first area of interest on a display device based on the data in the frame buffer (Col. 8, lines 59-62).

However, Beach **does not disclose** compressed data including overhead data that defines a geographical extent of the file, the overhead data includes latitude and longitude vertices. Hashimoto et al. **discloses** a compression unit used to compress the environment map; division of the environment map into a plurality of tiles and creation of a header for the compressed environment map. The header contains an offset value for each compressed tile which provides the starting location of a compressed tile within the compressed environment map (col. 5, lines 10-21). Further, Hashimoto et al. discloses compression unit 1410 compressing environment map 940 so that decompression unit 1420 can decompress specific parts of compressed environment map 1430, rather than requiring decompression of compressed environment map 1430 in its entirety (col. 13, lines 64-67; col. 14, lines 1-15). Hashimoto et al. discloses header formation unit 1530 that creates a header 1710 (Fig. 17) for a compressed image, header 1710 containing a tile descriptor which details size of compressed tile, shape of the tile and vertices of the tile in image (col. 14, lines 49-62). The specification of the present application in paragraph 36 details "In addition to containing data representing each pixel, CDRG files contain overhead data. The overhead data include a coverage section that defines the geographical extent of the tile using sets of latitude and longitude vertices. Thus, the approximate latitude and longitude represented by any pixel in the 1536.times.1536 array comprising the tile can be determined for purposes of defining an area of interest". Thus Hashimoto's header discloses similar limitations

as per the instant claim. Therefore, it would have been obvious to a person of ordinary skill in the art at the time invention was made to modify the device as taught by Beach with the “header that contains overhead data detailing tile information” as taught by Hashimoto **because** this results in less processing time for decompression.

17. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach (US005953017A) and Hashimoto (US006515673B1) in view of Hardy (US005640496A).

Regarding claims 17-18, Beach-Hashimoto combination **is silent about** means for flagging, as unused, nodes in the linked list that do not include image data for the graphic image of interest; means for determining if any nodes in the linked list are flagged as unused; means for replacing image data in a node flagged as unused; and means for adding to the linked list a node for storing the image data if no nodes in the linked list are flagged as unused. Hardy et al. **discloses** keeping a free list of available nodes 39 within each memory block 38 so that an empty node can be quickly found and added to the appropriate linked list of pixel value nodes (...As nodes are removed from a linked list, they are returned to the free list for reuse... The bitmap would specify which pixel value nodes are free and which are in use... col. 8, lines 14-27). Therefore, it would have been obvious to a person of ordinary skill in the art at the time invention was made to modify the device as taught by Beach-Hashimoto combination with the feature “maintenance of a free list of available nodes within each memory block so that an empty node can be quickly found and added to the linked list” as taught by Hardy et al. **because** it provides for not having to rearrange the allocated memory or consolidation of memory thus improving processing efficiency (col. 8, lines 14-21).

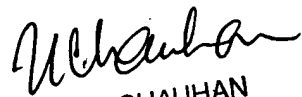
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joni Hsu whose telephone number is 571-272-7785. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on 571-272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JH


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